UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/302,687	04/29/1999	DAVID I DIETZ	9076/102	7243

7590 12/15/2004

ROGER A. HEPPERMANN
MARSHALL, GERSTEIN & BORUN
6300 SEARS TOWER
233 SOUTH WACKER DRIVE
CHICAGO, IL 60606-6402

EXAMINER	
ALI, SYED J	

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/302,687	DIETZ ET AL.	
	Examiner	Art Unit	
	Syed J Ali	2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 12-17* is/are rejected.

7)☒ Claim(s) *9-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 1, 2004 has been entered.

2. This office action is in response to the amendment filed November 1, 2004. Claims 1-17 are presented for examination.

3. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections - 35 USC § 102

4. **Claims 1-8 and 12-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Strauch et al. (USPN 6,522,939) (hereinafter Strauch).**

5. As per claim 1, Strauch teaches the invention as claimed, including an event historian for batch processing comprising:

a history executive element (col. 5 lines 15-22; Fig. 1 element 10) for receiving process event information from one or more input sources operating in physical elements of a process (col. 5 lines 48-57) and batch procedure event information from a batch control device (col. 5 lines 58-65), wherein the batch control device (Fig. 1 element 12) is separate from the physical elements of the process (Fig. 1 elements 13, 14, 16), and for automatically deriving relationships among portions of said process event information and batch procedure event information (col. 6 lines 60-65) based on generated event messages (col. 7 lines 12-18);

a storage element coupled to said executive element for persistently storing said process event information and said batch procedure event information and said derived relationships in response to requests from said history executive element (col. 7 lines 25-41); and

an event information retrieval element for retrieving said process event information and said batch procedure event information in accordance with said derived relationships in response to requests from an application process (col. 18 line 17 - col. 19 line 4).

6. As per claim 2, Strauch teaches the invention as claimed, including the event historian of claim 1 further comprising a continuous data collection element for gathering continuous data in real time wherein said continuous data relates to at least one procedural element of a batch process (col. 5 lines 48-57).

7. As per claims 3-4, Strauch teaches the invention as claimed, including the event historian of claim 2 wherein said informational retrieval element further comprises a batch historian view

client application for graphically presenting to a user said batch procedure event information and said relationships and said continuous data (col. 19 lines 21-23).

8. As per claims 5-6, Strauch teaches the invention as claimed, including the event historian of claim 1 further comprising a continuous data collection element for gathering continuous data in real time wherein said continuous data relates to at least one procedural element of a batch process (col. 5 lines 48-57);

a batch event generator coupled to said history executive element as a first input source wherein said batch event generator generates events indicative of execution of procedural elements of a batch process (col. 5 lines 58-65); and

a process event generator comprising an event log (col. 7 lines 12-18) coupled to said history executive element as a second input source wherein said process event generator generates events indicative of procedural elements performed within equipment used in the control of said batch process (col. 5 lines 48-57).

9. As per claim 7, Strauch teaches the invention as claimed, including the event historian of claim 6 wherein said history executive element includes a history correlation element for relating said batch events and said process events and said continuous data (col. 6 lines 60-65; col. 7 lines 12-18).

10. As per claim 8, Strauch teaches the invention as claimed, including in a batch processing system, a batch history view client application comprising:

means for retrieving (col. 18 line 17 - col. 19 line 4) batch procedure event information from a batch control device (col. 5 lines 58-65) and process event information from one or more sources operating separate from the batch control device in physical elements of a process corresponding to an identified batch (col. 5 lines 48-57); and

means for visually presenting to a user said batch procedure event information and process event information (col. 19 lines 21-23) and automatically deriving relationships among portions of said batch procedure event information and process event information (col. 6 lines 60-65).

11. As per claim 12, Strauch teaches the invention as claimed, including the view client of claim 8 further comprising means for retrieving other batch procedure event information corresponding to a second identified batch (col. 18 line 17 - col. 19 line 4); and

means for presenting to a user said other batch procedure event information and relationships among portions of said other batch procedure event information wherein said means for presenting said other batch procedure event information includes means for indicating differences between said batch procedure event information and said other batch procedure event information (col. 7 lines 12-18; col. 19 lines 21-23).

12. As per claim 13, Strauch teaches the invention as claimed, including the view client of claim 12 wherein said other batch procedure event information represents processing of a golden batch for comparison with other batches represented by said batch procedure event information (col. 7 lines 12-18).

13. As per claims 14-15 and 17, Strauch teaches the invention as claimed, including the view client of claim 12 wherein said means for visually presenting includes means for presenting said batch procedure event information and said relationships in real time as said batch procedure event information is generated (col. 5 lines 48-57) by scrolling said batch procedure event information horizontally across a user display screen (Fig. 26b).

14. As per claim 16, Strauch teaches the invention as claimed, including the view client of claim 14 further comprising continuous data collection means for gathering continuous data in real time wherein said continuous data relates to at least one data point of a batch process (col. 5 lines 48-57);

wherein said means for presenting said batch procedure event information in real time includes means for presenting said continuous data in real time as said continuous data is gathered (col. 5 lines 48-57; col. 19 lines 21-23).

Allowable Subject Matter

15. **Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

16. **The following is a statement of reasons for the indication of allowable subject matter:**

While Strauch discloses a view client for allowing an operator to monitor various aspects of the production process, Strauch does not specifically use a Gantt chart for displaying such data. The charting mechanisms typically used, including that of Strauch, is a display of individual processing elements or the overall batch campaign. The various processes may be displayed concurrently, but the relationships are left for the operators or engineers to observe. The displays do not usually allow such a high degree of interactivity, including derived relationships between various physical elements. Claims 3 and 4, which also address the view client, would be allowable if incorporated into claim 1 including the limitations of the base claim and any intervening claims, together with the patentable features described in claim 9.

Response to Arguments

17. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new grounds of rejection.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Burdick et al. (USPN 5,889,674) teaches real time supervision of data from disparate processing elements of a production process and storing the continuous data in a relational database, in addition to providing a graphical user interface that allows the user to perform search queries on the database.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Syed Ali
December 9, 2004

MENG-AI T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100